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The Next Big Thing: Voice Browsing

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Question

What is the next big thing in terms of Web access and mobility?

Answer

Without question, the voice is the most natural and convenient form of communication, but it has not been commonly linked to data applications. Connecting to the Web requires a user to have access to a PC, an Internet connection and a modem. Although highly utilized, the PC is neither a natural form of communication or always available. Voice technology that includes speech recognition and text-to-speech fills the gap left by the PC by offering a more convenient, inexpensive and easily understandable method to access Web content. Using voice technology, a user merely dials a number and, through a voice user interface (VUI), communicates with the Web site in much the same manner as a PC. Web access with a PC is best suited for longer sessions that are non-urgent, and voice browsers are more suited for mobile situations that are transaction-based. Voice browsing will increasingly be used by the mobile work force to access company information, such as customer data or technical information. Voice Web interface also supports multi-modal devices that allow users to use VUI to access a Web site and receive information on their mobile screen in response. The high growth in the mobile work force and emergence of multi-modal applications will accelerate the adoption of the voice Web interface as the alternative browser.

Widespread access and mobility are key drivers behind voice Web interface. Despite the fact that more than 50 percent of the US has access to the Web, only 8 percent of the world population has Web access. Extending Web access to the population without a PC offers a major benefit to companies that want to expand markets. Additionally, cell phone sales far outpaced those of PCs, creating a large mobile population that wants information readily available, resulting in up to 50 percent of Internet calls coming from mobile devices in the next four years. Business usage is another significant driver for voice Web interface. Companies must support their external employees, such as sales, service and delivery personnel who frequently need immediate access to account or technical information. The cost to automate these functions with voice technology is significantly lower than the cost of staffing large support organizations.

In order for voice browsing to grow, it needs to support secure applications with easy-to-use interfaces. Open standards are required to support multiple applications without proprietary interfaces and customized setup by the end user. Voice technology has undergone many improvements over the last few years and supports wide ranges of vocabularies and grammars. Although not to the level of interpreting casual conversations, the technology does support groups of words in context. Voice responses based on text-to-speech technology are no longer robotic sounding but support a range of voices that encourage a user to navigate the site.

Although voice technology has reached a point that gains high user acceptance, building and maintaining a voice infrastructure platform is still rather complex and requires expertise in voice technology. This will most likely encourage many companies to rely on outside services, such as **Tellme Networks** and **Voxeo**, to support applications, rather than invest in in-house development. Additionally, companies that deploy Web

access must format their Web content in Voice Extensible Markup Language (VoiceXML) or other voice markup language to be understood by the Web browser. For market growth to take off, more applications are needed to take this technology from early adapter to mainstream. However, mobility, travel and financial industries are currently guiding voice Web interface into mainstream usage. Organizations that want to reach a mobile work force or consumer populations should include voice user interface in their plans and evaluate service providers and vendors supporting these applications (see Planning Assumption, Market Overview: Speech Applications for Quality Customer Support, Elizabeth Herrell).